WEST Search History

DATE: Thursday, April 17, 2003

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L5	L4 with furin	4	L5
L4	L2 with subunit	51	L4
L3	L2 and subunit	4278	L3
L2	FUSION WITH CLEAV\$	7800	L2
L1	SUBUNIT WITH FURIN	15	L1

END OF SEARCH HISTORY

Welcome to STN International! Enter x:x LOGINID:ssspta1800exs PASSWORD: * * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * SESSION RESUMED IN FILE 'MEDLINE, SCISEARCH, LIFESCI, BIOTECHDS, BIOSIS, EMBASE, HCAPLUS, NTIS, ESBIOBASE, BIOTECHNO, WPIDS' AT 16:37:04 ON 17 APR 2003 FILE 'MEDLINE' ENTERED AT 16:37:04 ON 17 APR 2003 FILE 'SCISEARCH' ENTERED AT 16:37:04 ON 17 APR 2003 COPYRIGHT (C) 2003 Institute for Scientific Information (ISI) (R) FILE 'LIFESCI' ENTERED AT 16:37:04 ON 17 APR 2003 COPYRIGHT (C) 2003 Cambridge Scientific Abstracts (CSA) FILE 'BIOTECHDS' ENTERED AT 16:37:04 ON 17 APR 2003 COPYRIGHT (C) 2003 THOMSON DERWENT AND INSTITUTE FOR SCIENTIFIC INFORMATION FILE 'BIOSIS' ENTERED AT 16:37:04 ON 17 APR 2003 COPYRIGHT (C) 2003 BIOLOGICAL ABSTRACTS INC. (R) FILE 'EMBASE' ENTERED AT 16:37:04 ON 17 APR 2003 COPYRIGHT (C) 2003 Elsevier Science B.V. All rights reserved. FILE 'HCAPLUS' ENTERED AT 16:37:04 ON 17 APR 2003 COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS) FILE 'NTIS' ENTERED AT 16:37:04 ON 17 APR 2003 All rights reserved. (2003) FILE 'ESBIOBASE' ENTERED AT 16:37:04 ON 17 APR 2003 COPYRIGHT (C) 2003 Elsevier Science B.V., Amsterdam. All rights reserved. FILE 'BIOTECHNO' ENTERED AT 16:37:04 ON 17 APR 2003 COPYRIGHT (C) 2003 Elsevier Science B.V., Amsterdam. All rights reserved. FILE 'WPIDS' ENTERED AT 16:37:04 ON 17 APR 2003 COPYRIGHT (C) 2003 THOMSON DERWENT SINCE FILE TOTAL COST IN U.S. DOLLARS SESSION ENTRY 76.38 75.54 FULL ESTIMATED COST => s glcnac phosphotransferase 101 GLCNAC PHOSPHOTRANSFERASE L8 s 18 and (293 or hek293 or cho) 7 L8 AND (293 OR HEK293 OR CHO) Ь9 => dup rem 19 PROCESSING COMPLETED FOR L9 3 DUP REM L9 (4 DUPLICATES REMOVED) L10 => d 1-3COPYRIGHT 2003 CSA DUPLICATE 1 L10 ANSWER 1 OF 3 LIFESCI 90:54469 LIFESCI AN Regulation of glycosylation. Three enzymes compete for a common pool of TΤ dolichyl phosphate in vivo. AU Rosenwald, A.G.; Stoll, J.; Krag, S.S. Dep. Biochem., Johns Hopkins Univ. Sch. Hyg. and Public Health, 615 N. CS Wolfe St., Baltimore, MD 21205, USA J. BIOL. CHEM., (1990) vol. 265, no. 24, pp. 14544-553. SO DT Journal FS LΑ English SLEnglish L10 ANSWER 2 OF 3 LIFESCI COPYRIGHT 2003 CSA AN88:24900 LIFESCI A mutant of Chinese hamster ovary cells with a reduction in levels of TΙ

```
dolichyl phosphate available or glycosylation.
     Stoll, J.; Krag, S.S.
ΑU
     Lab. Clin. Stud., Natl. Inst. Alcohol Abuse and Alcoholism, Natl. Inst.
CS.
     Health, Bethesda, MD 20892, USA
     J. BIOL. CHEM., (1988) vol. 263, no. 22, pp. 10776-773.
SO
DT
     Journal
FS
     G
LA
     English
SL
     English
     ANSWER 3 OF 3 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.DUPLICATE 2
L10
     88181835 EMBASE
AN
     1988181835
DN
     A mutant of Chinese hamster ovary cells with a reduction in levels of
ΤI
     dolichyl phosphate available for glycosylation.
     Stoll J.; Krag S.S.
ΑU
     Department of Biochemistry, Johns Hopkins University, School of Hygiene
CS
     and Public Health, Baltimore, MD 21205, United States
     Journal of Biological Chemistry, (1988) 263/22 (10766-10773).
SO
     ISSN: 0021-9258 CODEN: JBCHA3
     United States
CY
     Journal
DT
             Clinical Biochemistry
FS
     029
     English
LA
SL
     English
=> d 1-3 kwic
                                                        DUPLICATE 1
L10 ANSWER 1 OF 3 LIFESCI
                               COPYRIGHT 2003 CSA
     . . . hamster ovary cells containing alterations in the levels of
AB
     activity of two enzymes in the oligosaccharyl-P-P-dolichol biosynthetic
     pathway, namely UDP-GlcNAc:dolichyl phosphate:GlcNAc-
     phosphotransferase (GlcNAc-1-phosphotransferase) and
     mannosylphosphoryldolichol (Man-P-Dol) synthase. When 3E11 cells (a
     tunicamycin-resistant Chinese hamster ovary line containing 15 times more
     GlcNAc-1-phosphotransferase activity. .
     glycosylation; dolichyl phosphate; enzymatic activity; CHO cells
UT
                               COPYRIGHT 2003 CSA
T<sub>1</sub>1.0
     ANSWER 2 OF 3 LIFESCI
     . . . reduced amounts. In vitro assays using membrane preparations
AB
     showed that F2A8 had parental levels of glucosyl-phosphoryldolichol
     synthase and of UDP-GlcNAc:dolichyl phosphate:GlcNAc-
     phosphotransferase when the enzymatic determinations were done in
     the presence of exogenous dolichyl phosphate.
     CHO cells; dolichyl phosphate; glycosylation; levels; mutants
UT
     ANSWER 3 OF 3 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.DUPLICATE 2
L10
     . . . gel electrophoresis. In vitro assays using membrane preparations
AΒ
     showed that F2A8 had parental levels of glucosylphosphoryldolichol
     synthase and of UDP-GlcNAc:dolichyl phosphate:GlcNAc-
     phosphotransferase when the enzymatic determinations were done in
     the presence of exogenous dolichyl phosphate. However, 5-fold less
     glucosylphosphoryldolichol synthase activity was.
CT
     Medical Descriptors:
     *cell mutant
     *protein glycosylation
     cell culture
       cho cell
     hamster
     animal cell
     nonhuman
     *dolichol phosphate
     *mannose
     radioisotope
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             206 S FURIN AND REVIEW
L1
            2109 S FURIN/TI
L2
L3
               8 S L1 AND SUBUNIT
L4
               5 DUP REM L3 (3 DUPLICATES REMOVED)
              96 S FURIN AND SUBUNIT AND FUSION
L5
L6
              82 S L5 AND CLEAV?
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L7
L8
             101 S GLCNAC PHOSPHOTRANSFERASE
L9
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L10
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=> s 18 and (express? or recombina? or dna)
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PROCESSING COMPLETED FOR L11
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                                                        DUPLICATE 1
AN
     2001:208390 HCAPLUS
DN
     134:248843
TI
     Use of GlcNAc-phosphotransferase and phosphodiester
      .alpha.-GlcNAcase in production of highly phosphorylated lysosomal
     hydrolases useful in treatment of lysosomal storage diseases
IN
     Canfield, William M.
PΑ
     USA
SO
     PCT Int. Appl., 91 pp.
     CODEN: PIXXD2
рπ
     Patent
     English
LA
FAN.CNT 1
     PATENT NO.
                      KIND
                            DATE
                                           APPLICATION NO. DATE
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                       Α2
                            20010322
                                           WO 2000-US21970 20000914
     WO 2001019955
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                            20011004
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             HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
             LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU,
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                                                      TM
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                                           BR 2000-14514
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                       Α
                            20020723
                                                             20000914
                                           EP 2000-961335
     EP 1224266
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             IE, SI, LT, LV, FI, RO, MK, CY, AL
     JP 2003509043
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                                                             20010702
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PRAI US 1999-153831P
                       Р
                            19990914
     US 2000-635872
                       A1
                            20000810
     WO 2000-US21970
                       W
                            20000914
L12
      ANSWER 2 OF 7 BIOTECHDS COPYRIGHT 2003 THOMSON DERWENT AND ISI
AN
      2001-09921 BIOTECHDS
TI
      Novel N-acetylglucosamine-1-phosphotransferase and N-acetylglucosamine-1-
      phosphodiester-alpha-N-acetylglucosaminidase, useful for producing
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phosphorylated lysosomal har olase for treating lysosomal s diseases; vector-mediated gene transfer and expression in host cell, monoclonal antibody and hybridoma Canfield W M Canfield W M Oklahoma City, OK, USA. WO 2001019955 22 Mar 2001 WO 2000-US21970 14 Sep 2000 PRAI US 1999-153831 14 Sep 1999 Patent English WPI: 2001-290356 [30] ANSWER 3 OF 7 WPIDS (C) 2003 THOMSON DERWENT 2001-290925 [30] WPIDS DNN N2001-207764 DNC C2001-089281 Producing a post-translationally modified heterologous polypeptide such as immunoglobulin, integrin, addressin, selectin, in plant host system, comprises altering natural post-translational modification abilities of plant. B04 C06 D16 P13 BASSUNER, R; MANJUNATH, S; RUSSELL, D (MONS) MONSANTO CO CYC 94 WO 2001029242 A2 20010426 (200130)* EN 132p C12N015-82 RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW AU 2001015736 A 20010430 (200148) C12N015-82 A2 20020724 (200256) EN EP 1224309 C12N015-82 R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI ADT WO 2001029242 A2 WO 2000-US29027 20001020; AU 2001015736 A AU 2001-15736 20001020; EP 1224309 A2 EP 2000-978257 20001020, WO 2000-US29027 20001020 AU 2001015736 A Based on WO 200129242; EP 1224309 A2 Based on WO 200129242 PRAI US 2000-195282P 20000407; US 1999-160758P 19991021 ICM C12N015-82 ICS A01H005-00; C12N009-10 ANSWER 4 OF 7 SCISEARCH COPYRIGHT 2003 ISI (R) T.12 DUPLICATE 2 2000:206232 SCISEARCH The Genuine Article (R) Number: 291QD Molecular basis of variant pseudo-Hurler polydystrophy (mucolipidosis RaasRothschild A; CormierDaire V; Bao M; Genin E; Salomon R; Brewer K; Zeigler M; Mandel H; Toth S; Roe B; Munnich A; Canfield W M (Reprint) UNIV OKLAHOMA, HLTH SCI CTR, STANTON L YOUNG BIOMED RES CTR 411, WK WARREN MED RES INST, OKLAHOMA CITY, OK 73104 (Reprint); UNIV OKLAHOMA, HLTH SCI CTR, STANTON L YOUNG BIOMED RES CTR 411, WK WARREN MED RES INST, OKLAHOMA CITY, OK 73104; UNIV OKLAHOMA, HLTH SCI CTR, DEPT MED, OKLAHOMA CITY, OK 73104; HADASSAH HEBREW UNIV HOSP, DEPT HUMAN GENET, IL-91120 JERUSALEM, ISRAEL; HOP NECKER ENFANTS MALAD, INSERM, U393, UNITE RECH HANDICAPS GENET ENFANT, F-75015 PARIS, FRANCE; INSERM, U155, F-75016 PARIS, FRANCE; RAMBAM MED CTR, DEPT PEDIAT, IL-35254 HAIFA, ISRAEL; UNIV OKLAHOMA, DEPT CHEM, NORMAN, OK 73019 CYA USA; ISRAEL; FRANCE JOURNAL OF CLINICAL INVESTIGATION, (MAR 2000) Vol. 105, No. 5, pp. 673-681. Publisher: AMER SOC CLINICAL INVESTIGATION INC, ROOM 4570 KRESGE I, 200 ZINA PITCHER PLACE, ANN ARBOR, MI 48109-0560. ISSN: 0021-9738. Article; Journal LIFE English REC Reference Count: 35

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L12
     ANSWER 5 OF 7
                       MEDLINE
                                                         DUPLICATE 3
AN
     1998019241
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DN
     98019241
                PubMed ID: 9353330
ΤI
     UDP-GlcNAc:Ser-protein N-acetylglucosamine-1-phosphotransferase from
     Dictyostelium discoideum recognizes serine-containing peptides and
     eukaryotic cysteine proteinases.
     Mehta D P; Etchison J R; Wu R; Freeze H H
AU
     The Burnham Institute, La Jolla Cancer Research Center, La Jolla,
CS
     California 92037, USA.
NC
     RO1 32485
     JOURNAL OF BIOLOGICAL CHEMISTRY, (1997 Nov 7) 272 (45) 28638-45.
SO
     Journal code: 2985121R. ISSN: 0021-9258.
CY
     United States
DT
     Journal; Article; (JOURNAL ARTICLE)
LΑ
     English
     Priority Journals
FS
     199712
EΜ
     Entered STN: 19980109
ED
     Last Updated on STN: 20000303
     Entered Medline: 19971212
L12 ANSWER 6 OF 7 SCISEARCH COPYRIGHT 2003 ISI (R)
     96:911001 SCISEARCH
ΑN
     The Genuine Article (R) Number: VW686
GA
TI
     Bovine UDP-N-acetylglucosamine:lysosomal-enzyme N-acetylglucosamine-1-
     phosphotransferase .1. Purification and subunit structure
ΑU
     Bao M; Booth J L; Elmendorf B J; Canfield W M (Reprint)
CS
     UNIV OKLAHOMA, HLTH SCI CTR, WK WARREN MED RES INST, BSEB 302, 941 STANTON
     L YOUNG BLVD, OKLAHOMA CITY, OK 73104 (Reprint); UNIV OKLAHOMA, HLTH SCI
     CTR, WK WARREN MED RES INST, OKLAHOMA CITY, OK 73104; UNIV OKLAHOMA, HLTH
     SCI CTR, DEPT MED, OKLAHOMA CITY, OK 73104
CYA
     JOURNAL OF BIOLOGICAL CHEMISTRY, (6 DEC 1996) Vol. 271, No. 49, pp.
SO
     Publisher: AMER SOC BIOCHEMISTRY MOLECULAR BIOLOGY INC, 9650 ROCKVILLE
     PIKE, BETHESDA, MD 20814.
     ISSN: 0021-9258.
DT
     Article; Journal
FS
     LIFE
LA
     English
REC
     Reference Count: 35
     *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*
L12 ANSWER 7 OF 7
                       MEDLINE
                                                         DUPLICATE 4
AN
     92283889
                  MEDLINE
     92283889
DN
                PubMed ID: 1317874
     Characterization of UDP-N-acetylqlucosamine:qlycoprotein
     N-acetylglucosamine-1-phosphotransferase from Acanthamoeba castellanii.
ΑU
     Ketcham C M; Kornfeld S
     Department of Medicine, Washington University School of Medicine, St.
CS
     Louis, Missouri 63110.
NC
     CA 08759 (NCI)
SO
     JOURNAL OF BIOLOGICAL CHEMISTRY, (1992 Jun 5) 267 (16) 11654-9.
     Journal code: 2985121R. ISSN: 0021-9258.
CY
     United States
DT
     Journal; Article; (JOURNAL ARTICLE)
LA
     English
FS
     Priority Journals
EΜ
     199207
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Entered STN: 19920717

Last Updated on STN: 19970203 Entered Medline: 19920706

ΤI Use of GlcNAc-phosphotrans: se and phosphodiester .alpha.-GlcNAcase in production of highly phosphorylated lysosomal hydrolases useful in treatment of lysosomal storage diseases The lysosomal targeting pathway enzymes GlcNAcphosphotransferase and phosphodiester .alpha.-GlcNAcase and uses in prodn. of highly phosphorylated lysosomal hydrolases that can be used to treat lysosomal storage diseases, are disclosed. Generally, the nucleic acid mols. coding for the enzymes are incorporated into expression vectors that are used to transfect host cells that express the enzymes. The expressed enzymes are recovered using monoclonal antibodies capable of selectively binding to bovine GlcNAc-phosphotransferase and to bovine phosphodiester .alpha.-GlcNAcase. Lysosomal hydrolases having high mannose structures are treated with GlcNAcphosphotransferase and phosphodiester .alpha.-GlcNAcase resulting in the prodn. of asparagine-linked oligosaccharides that are highly modified with mannose 6-phosphate ("M6P"). The treated. ST GlcNAc phosphotransferase phosphodiester alpha GlcNAcase phosphorylation lysosomal hydrolase; lysosomal storage disease enzyme replacement therapy hydrolase TΤ Disease, animal (Aspartylglucosaminuria; use of GlcNAcphosphotransferase and phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated lysosomal hydrolases useful in treatment of lysosomal storage diseases) Disease, animal IT (Farber Lipogranulomatosis; use of GlcNAcphosphotransferase and phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated lysosomal hydrolases useful in treatment of lysosomal storage diseases) IT Disease, animal (Fucsidosis; use of GlcNAc-phosphotransferase and phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated lysosomal hydrolases useful in treatment of lysosomal storage diseases) IT Gangliosidosis (GM1 gangliosidosis; use of GlcNAc-phosphotransferase and phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated lysosomal hydrolases useful in treatment of lysosomal storage diseases) ΙT Mucopolysaccharidosis (Hunter's syndrome; use of GlcNAc-phosphotransferase and phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated lysosomal hydrolases useful in treatment of lysosomal storage diseases) IT Mucopolysaccharidosis (Hurler's syndrome; use of GlcNAc-phosphotransferase and phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated lysosomal hydrolases useful in treatment of lysosomal storage diseases) IT Brain, disease (Krabbe's disease; use of GlcNAc-phosphotransferase and phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated lysosomal hydrolases useful in treatment of lysosomal storage diseases) ΙT Mucopolysaccharidosis (Maroteaux-Lamy syndrome; use of GlcNAcphosphotransferase and phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated lysosomal hydrolases useful in treatment of lysosomal storage diseases) ITDisease, animal (Morquio Syndrome; use of GlcNAc-phosphotransferase and phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated lysosomal hydrolases useful in treatment of lysosomal storage diseases) IT Disease, animal (Mucolipidosis IV; use of GlcNAc-phosphotransferase and phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated lysosomal hydrolases useful in treatment of lysosomal storage diseases) IT Gangliosidosis (Sandhoff's disease; use of GlcNAc-phosphotransferase and phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated lysosomal hydrolases useful in treatment of lysosomal storage diseases) IT Disease, animal (Sanfilippo A; use of GlcNAc-phosphotransferase and

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phosphodiester .alpha.-0
                                   Acase in prodn. of highly phos
                                                                     rylated
         lysosomal hydrolases useful in treatment of lysosomal storage diseases)
IT.
     Disease, animal
         (Schindler Disease; use of GlcNAc-phosphotransferase
        and phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated
        lysosomal hydrolases useful in treatment of lysosomal storage diseases)
IT
     Disease, animal
         (Sialidosis; use of GlcNAc-phosphotransferase and
        phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated
        lysosomal hydrolases useful in treatment of lysosomal storage diseases)
IT
     Disease, animal
         (Sly Syndrome; use of GlcNAc-phosphotransferase and
        phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated
        lysosomal hydrolases useful in treatment of lysosomal storage diseases)
IT
     Gangliosidosis
         (Tay-Sachs disease; use of GlcNAc-phosphotransferase
        and phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated
        lysosomal hydrolases useful in treatment of lysosomal storage diseases)
IT
     Disease, animal
        (Wolman's; use of GlcNAc-phosphotransferase and
        phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated
        lysosomal hydrolases useful in treatment of lysosomal storage diseases)
IT
     Oligosaccharides, biological studies
     RL: BOC (Biological occurrence); BSU (Biological study, unclassified);
     BIOL (Biological study); OCCU (Occurrence)
        (asparagine-linked, in lysosomal hydrolase; use of GlcNAc-
        phosphotransferase and phosphodiester .alpha.-GlcNAcase in
        prodn. of highly phosphorylated lysosomal hydrolases useful in
        treatment of lysosomal storage diseases)
IT
     Sialic acids
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (galactosialidosis; use of GlcNAc-phosphotransferase
        and phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated
        lysosomal hydrolases useful in treatment of lysosomal storage diseases)
IT
     Brain, disease
        (metachromatic leukodystrophy; use of GlcNAc-
        phosphotransferase and phosphodiester .alpha.-GlcNAcase in
        prodn. of highly phosphorylated lysosomal hydrolases useful in
        treatment of lysosomal storage diseases)
IT
     RL: BAC (Biological activity or effector, except adverse); BPR (Biological
     process); BSU (Biological study, unclassified); BIOL (Biological study);
     PROC (Process)
        (monoclonal; use of GlcNAc-phosphotransferase and
        phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated
        lysosomal hydrolases useful in treatment of lysosomal storage diseases)
IT
     Phosphorylation, biological
        (protein; use of GlcNAc-phosphotransferase and
        phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated
        lysosomal hydrolases useful in treatment of lysosomal storage diseases)
IT
     Enzymes, biological studies
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (replacement therapy; use of GlcNAc-
        phosphotransferase and phosphodiester .alpha.-GlcNAcase in
        prodn. of highly phosphorylated lysosomal hydrolases useful in
        treatment of lysosomal storage diseases)
IT
    Glycogen storage disease
        (type II; use of GlcNAc-phosphotransferase and
        phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated
        lysosomal hydrolases useful in treatment of lysosomal storage diseases)
IT
    Fabry disease
    Gaucher disease
    Genetic vectors
    Hybridoma
    Lysosomal storage disease
    Lysosome
    Molecular cloning
    Niemann-Pick disease
    Protein sequences
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cDNA sequences
        (use of GlcNAc-phosphotransferase and
        phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated
        lysosomal hydrolases useful in treatment of lysosomal storage diseases)
IT
     Antibodies
     RL: BAC (Biological activity or effector, except adverse); BPR (Biological
     process); BSU (Biological study, unclassified); BIOL (Biological study);
     PROC (Process)
        (use of GlcNAc-phosphotransferase and
        phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated
        lysosomal hydrolases useful in treatment of lysosomal storage diseases)
     Gangliosides
     RL: BPR (Biological process); BSU (Biological study, unclassified); THU
     (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
        (use of GlcNAc-phosphotransferase and
        phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated
        lysosomal hydrolases useful in treatment of lysosomal storage diseases)
IT
     9012-33-3
     RL: BPR (Biological process); BSU (Biological study, unclassified); THU
     (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
        (A; use of GlcNAc-phosphotransferase and
        phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated
        lysosomal hydrolases useful in treatment of lysosomal storage diseases)
     9068-67-1, Sulfatase
IT
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (Deficiency, Multiple; use of GlcNAc-
        phosphotransferase and phosphodiester .alpha.-GlcNAcase in
        prodn. of highly phosphorylated lysosomal hydrolases useful in
        treatment of lysosomal storage diseases)
IT
     9027-41-2, Hydrolase
                           9031-54-3, Sphingomyelinase
     RL: BPR (Biological process); BSU (Biological study, unclassified); THU
     (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
        (Lysosomal; use of GlcNAc-phosphotransferase and
        phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated
        lysosomal hydrolases useful in treatment of lysosomal storage diseases)
IT
     253334-78-0P, N-Acetylglucosamine-1-phosphodiester .alpha.-N-
     Acetylglucosaminidase (human)
     RL: BPN (Biosynthetic preparation); CAT (Catalyst use); PRP (Properties);
     PUR (Purification or recovery); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (amino acid sequence; use of GlcNAc-
        phosphotransferase and phosphodiester .alpha.-GlcNAcase in
        prodn. of highly phosphorylated lysosomal hydrolases useful in
        treatment of lysosomal storage diseases)
IT
     3458-28-4, Mannose
     RL: BOC (Biological occurrence); BSU (Biological study, unclassified);
     BIOL (Biological study); OCCU (Occurrence)
        (in lysosomal hydrolase; use of GlcNAc-
        phosphotransferase and phosphodiester .alpha.-GlcNAcase in
        prodn. of highly phosphorylated lysosomal hydrolases useful in
        treatment of lysosomal storage diseases)
ΙT
     9068-25-1, .alpha.-1,2-Mannosidase
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
        (inhibitor; use of GlcNAc-phosphotransferase and
        phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated
        lysosomal hydrolases useful in treatment of lysosomal storage diseases)
IT
     528-04-1
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (transfer of N-acetyl glucosamine-1-phosphate from; use of
        GlcNAc-phosphotransferase and phosphodiester
        .alpha.-GlcNAcase in prodn. of highly phosphorylated lysosomal
        hydrolases useful in treatment of lysosomal storage diseases)
ΙT
     28446-21-1, N-Acetyl glucosamine-1-phosphate
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (transfer of; use of GlcNAc-phosphotransferase and
        phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated
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lysosomal hydrolases use
                                   in treatment of lysosomal store diseases)
                   331288-43-8, 2: PN: WO0119955 PAGE: 53 unclaimed DNA
     331288-44-9, 3: PN: WO0119955 PAGE: 54 unclaimed DNA
     331288-45-0, 4: PN: WO0119955 PAGE: 54 unclaimed DNA
     331288-46-1
                   331288-47-2
                                 331288-48-3
                                                            331288-50-7
                                                331288-49-4
     331288-51-8
                   331288-52-9
                                 331288-53-0
                                                331288-54-1, 16: PN: WO0119955
     PAGE: 50 unclaimed DNA
                              331288-55-2
                                            331288-56-3
     RL: PRP (Properties)
         (unclaimed nucleotide sequence; use of GlcNAc-
        phosphotransferase and phosphodiester .alpha.-GlcNAcase in
        prodn. of highly phosphorylated lysosomal hydrolases useful in
        treatment of lysosomal storage diseases)
IT
     331443-59-5
                   331443-60-8
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         (unclaimed protein sequence; use of GlcNAc-
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        prodn. of highly phosphorylated lysosomal hydrolases useful in
        treatment of lysosomal storage diseases)
IT
     331434-83-4
                   331434-84-5
                                 331434-86-7
                                               331434-87-8
                                                             331434-89-0
     331434-90-3
                   331434-91-4
                                 331434-93-6
                                               331434-95-8
                                                             331434-97-0
     331434-99-2 331435-01-9
                                 331435-02-0
     RL: PRP (Properties)
        (unclaimed sequence; use of GlcNAc-phosphotransferase
        and phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated
        lysosomal hydrolases useful in treatment of lysosomal storage diseases)
     75788-84-0P, E.C. 3.1.4.45
IT
                                 84012-69-1P, E.C. 2.7.8.17
     RL: BPN (Biosynthetic preparation); CAT (Catalyst use); PRP (Properties);
     PUR (Purification or recovery); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (use of GlcNAc-phosphotransferase and
        phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated
        lysosomal hydrolases useful in treatment of lysosomal storage diseases)
IT
     7512-17-6, N-Acetylglucosamine
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (use of GlcNAc-phosphotransferase and
        phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated
        lysosomal hydrolases useful in treatment of lysosomal storage diseases)
IT
     9001-42-7, .alpha.-Glucosidase
                                     9001-45-0, .beta.-Glucuronidase
     9001-62-1
               9001-67-6, Neuraminidase
                                            9016-17-5, Arylsulfatase
     9025-35-8, .alpha.-Galactosidase A
                                          9025-62-1, Arylsulfatase C
     9027-89-8, Galactocerebrosidase
                                      9030-36-8, Galactose 6-sulfatase
                9037-65-4, .alpha.-Fucosidase 9068-68-2, Arylsulfatase A
     9073-56-7, .alpha.-Iduronidase 9075-63-2, .alpha.-N-Acetyl
     galactosaminidase
                         9077-06-9, Heparan N-sulfatase
                                                         37228-64-1,
     Glucocerebroside .beta.-Glucosidase
                                           37288-40-7, N-Acetyl-.alpha.-
     glucosaminidase
                       37289-06-8, Acid Ceramidase
                                                    50936-59-9, Iduronate
                  55354-43-3, Arylsulfatase B
                                                56467-83-5, Ceramidase
     59299-00-2, N-Acetylgalactosamine-6-sulfatase
                                                    60320-99-2,
     N-Acetylglucosamine-6-sulfatase
                                       79955-83-2, Acetyl CoA-.alpha.-
     glucosaminide N-acetyl transferase
                                          83534-39-8, N-Glycosidase F
     RL: BPR (Biological process); BSU (Biological study, unclassified); THU
     (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
        (use of GlcNAc-phosphotransferase and
        phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated
        lysosomal hydrolases useful in treatment of lysosomal storage diseases)
IT
     3672-15-9, Mannose 6-phosphate
     RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL
     (Biological study); FORM (Formation, nonpreparative)
        (use of GlcNAc-phosphotransferase and
        phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated
        lysosomal hydrolases useful in treatment of lysosomal storage diseases)
IT
     84444-90-6, Deoxymannojirimycin
                                       109944-15-2, Kifunensine
                                                                  149674-55-5,
    D-Mannoamidrazone
                       155501-85-2
    RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
     (Uses)
        (use of GlcNAc-phosphotransferase and
        phosphodiester .alpha.-GlcNAcase in prodn. of highly phosphorylated
        lysosomal hydrolases useful in treatment of lysosomal storage diseases)
```

L12 ANSWER 2 OF 7 BIOTECHDS COPYRIGHT 2003 THOMSON DERWENT AND ISI Novel N-acetylglucosamine-1-phosphotransferase and N-acetylglucosamine-1-TI. phosphodiester-alpha-N-acetylglucosaminidase, useful for producing phosphorylated lysosomal hydrolase for treating lysosomal storage

vector-mediated gene transfer and expression in host cell, monoclonal antibody and hybridoma

Isolated human N-acetylglucosamine-1-phosphotransferase (GlcNAc -phosphotransferase) and N-acetylglucosamine-1-phosphodiesteralpha-N-acetylglucosaminidase (phosphodiester-alpha-GlcNAcase, EC-3.1.4.45), is new. Also claimed are: nucleic acids encoding GlcNAc-phosphotransferase and phosphodiester alpha-GlcNAcase; vector containing the nucleic acids; host cell containing the vector; preparation of GlcNAcphosphotransferase or phosphodiester-alpha-GlcNAcase; nucleic acids encoding mouse GlcNAc-phosphotransferase which has an alpha-subunit, beta-subunit and gamma-subunit and mouse phosphodiester-alpha-GlcNAcase; vector and host cell transformed with this vector; preparation of mouse GlcNAcphosphotransferase and phosphodiester-alpha-GlcNAcase; lysosomal hydrolase containing a mannose-6-phosphate; phosphorylated lysosomal hydrolase; producing a high mannose lysosomal hydrolase; high mannose lysosomal hydrolase; and monoclonal antibodies produced by PT18 hybridoma (ATCC PTA 2432) or UC1 hybridoma (ATCC 2431).. The GlcNAcphosphotransferase and phosphodiester-alpha-GlcNAcase are useful

for producing a phosphorylated lysosomal hydrolase for treating lysosomal storage disease. (91pp)

HUMAN, MOUSE RECOMBINANT N-ACETYLGLUCOSAMINE-1-PHOSPHOTRANSFERASE, N-ACETYLGLUCOSAMINE-1-PHOSPHODIESTER-ALPHA-N-ACETYLGLUCOSAMINIDASE PREP., VECTOR-MEDIATED GENE TRANSFER, EXPRESSION IN HOST CELL, MONOCLONAL ANTIBODY, HYBRIDOMA, APPL. PHOSPHORYLATED LYSOSOMAL HYDROLASE PREP., LYSOSOMAL STORAGE DISEASE THERAPY ANIMAL MAMMAL ENZYME EC-3.1.4.45 DNA SEQUENCE PROTEIN SEQUENCE CELL CULTURE (VOL.20, NO.19)

L12 ANSWER 3 OF 7 WPIDS (C) 2003 THOMSON DERWENT AB new.

DETAILED DESCRIPTION - Producing (M1) a post-translationally (PT) modified heterologous polypeptide in a plant host system (I) comprising:

- (a) expressing the heterologous polypeptide, where the cells of $(\bar{\mathbf{I}})$ have been transformed with one or more expression vectors containing a nucleic acid sequence encoding a heterologous polypeptide;
- (b) expressing a PT modifying enzyme, where the cells of (I) have been transformed with an expression vector containing a nucleic acid sequence encoding a PT modifying enzyme;
- (c) expressing a heterologous polypeptide and a PT modifying enzyme where the cells of (I) have been transformed with a first expression vector containing a nucleic acid sequence encoding a heterologous polypeptide and a second expression vector containing a nucleic acid sequence encoding a PT modifying enzyme; and
- (d) cross-pollinating a first (I) whose cells have been transformed with a first expression vector containing a nucleic acid sequence encoding a heterologous polypeptide, and a second (I), where the cells of (I) have been transformed with a second expression vector containing a nucleic acid sequence encoding a PT modifying enzyme.

INDEPENDENT CLAIMS are also included for the following:

(1) (I) **expressing** a PT-modified heterologous polypeptide where the natural PT modification abilities of (I) have been altered where

(a) the cells of (I) have been transformed with:

- (i) an expression vector comprising a nucleic acid sequence encoding a heterologous polypeptide;
 - (ii) an expression vector comprising a PT modifying enzyme;
- (iii) a first expression vector comprising a nucleic acid sequence encoding a heterologus polypeptide and a second expression vector comprising a nucleic acid sequence encoding a PT modifying enzyme;

CT

AΒ

- (b) (I) that produces modified heterologous polypept expresses a first expression vector comprising a nucleic acid sequence encoding a heterologous polypeptide and a second express vector comprising a nucleic acid sequence encoding a PT modifying enzyme;
 - (2) a plant (II) produced by M1;
 - (3) a seed produced from (II); and
- (4) an expression vector comprising one or more nucleic acid sequences encoding one or more of heterologous polypeptide and a PT modifying enzyme...

TECH.

one or more nucleic acid sequences encoding a PT modification enzyme such as glycoprotein glycosyltransferases, GlcNAc-1-phosphotransferase, GlcNAc-1-phosphodiester-N-acetylglucosaminindase, glycosidases, exoglycosidases, endoglycosidaes, GlcNAc phosphotransferase, protein kinases, 3'-phosphoadenosyl-5'phosphosulfate, prolyl hydroxylase and lysyl hydroxylase. Alternately, the process of altering the natural PT-modification abilities of the (I). be carried out by transforming (I) comprising a nucleic acid sequence that encodes an antisense nucleic acid (antisense RNA or DNA) which inhibits the expression of at least one endogenous plant protein that comprises a plant specific-PT modification enzyme such as N-acetyl glucosaminyl transferase 1. . . cell suspension culture). Preferred Nucleic Acid: The nucleic acid sequences encoding the heterologous polypeptide are contained with one or more expression

L12 ANSWER 4 OF 7 SCISEARCH COPYRIGHT 2003 ISI (R) DUPLICATE 2 AB . . . disease of lysosomal hydrolase trafficking. Unlike the related diseases, mucolipidosis II and IIIA, the enzyme affected in mucolipidosis IIIC (N-Acetylglucosamine-1-phosphotransferase [GlcNAcphosphotransferase]) retains full transferase activity on synthetic substrates but lacks activity on lysosomal hydrolases. Bovine GlcNAc-phosphotransferase has recently been isolated as a multisubunit enzyme with the subunit structure alpha(2)beta(2)gamma(2). We cloned the cDNA for the human.

vectors that further comprise a signal peptide functional in the plant

KeyWords Plus (R): UDP-N-ACETYLGLUCOSAMINE; LYSOSOMAL-ENZYME N-ACETYLGLUCOSAMINE-1-PHOSPHOTRANSFERASE; I-CELL DISEASE; LINKAGE ANALYSIS; SEQUENCE; FIBROBLASTS; PHOSPHORYLATION; HETEROGENEITY; RECEPTORS; DNA

host system, a promoter functional in the plant host.

L12 ANSWER 5 OF 7 MEDLINE DUPLICATE 3 AB Phosphoglycosylation catalyzed by UDP-GlcNAc:Ser-protein N-acetylglucosamine-1-phosphotransferase (Ser:GlcNAc phosphotransferase) adds GlcNAcalpha-1-P to peptidyl-Ser of selected Dictyostelium discoideum proteins. Lysosomal cysteine proteinase (CP), proteinase-1(CP7), is the major phosphoglycosylated protein in. destroys the inhibitory potential of all CPs showing that transferase recognizes a conformation-dependent feature that is shared by all. Proteinase-1(CP7) expressed in Escherichia coli lacks GlcNAc-1-P, but it is a substrate for Ser:GlcNAc phosphotransferase, Km = 5.6 microM. Thus, Ser:GlcNAc phosphotransferase recognizes both acceptor peptide sequences and a conformational feature of eukaryotic CPs. This may be physiologically important for establishing or. CT

. . Support, U.S. Gov't, P.H.S. Chromatography, High Pressure Liquid *Cysteine Endopeptidases: ME, metabolism

*Dictyostelium: EN, enzymology Glycosylation

*Peptides: ME, metabolism Phosphorylation

Recombinant Fusion Proteins: ME, metabolism

*Serine: ME, metabolism Spectrometry, Mass, Matrix-Assisted Laser Desorption-Ionization Substrate Specificity *Transferases (Other Substituted Phosphate Groups):.

CN 0 (Peptides); 0 (Recombinant Fusion Proteins); EC 2.7.8

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(Transferases (Other Substi
                                   ed Phosphate Groups)); EC 2.7.
      (UDP-GlcNAc - Ser-protein N-acetylglucosamine-1-phosphotransferase); EC
     3.4.22 (Cysteine Endopeptidases)
     ANSWER 6 OF 7 SCISEARCH COPYRIGHT 2003 ISI (R)
L12
        UDP-N-acetylglucosamine:lysosomal-enzyme N-acetylglucosamine-1-
     phosphotransferase (GlcNAc-phosphotransferase)
     catalyzes the initial step in the synthesis of the mannose 6-phosphate
     determinant required for efficient intracellular targeting of newly
     synthesized. . . green 19-agarose, and Superose 6, The partially
     purified enzyme was used to generate a panel of murine monoclonal
     antibodies, The anti-GlcNAc-phosphotransferase
     monoclonal antibody PT18 was coupled to a solid support and used to
     immunopurify the enzyme similar to 480,000-fold to apparent. . . a
     combination of analytical gel filtration chromatography, sodium dodecyl
     sulfate-polyacrylamide gel electrophoresis, and amino-terminal sequencing.
     The data indicate that bovine GlcNAc-phosphotransferase
     is a 540,000-Da complex composed of disulfide-linked homodimers of
     166,000- and 51,000-Da subunits and two identical, noncovalently
     associated 56,000-Da subunits.
     KeyWords Plus (R): I-CELL DISEASE; GLYCOPROTEIN N-ACETYLGLUCOSAMINE-1-
     PHOSPHOTRANSFERASE; RAT-LIVER; CDNA CLONING; PROTEINS;
     ACETYLGLUCOSAMINYLPHOSPHOTRANSFERASE; PHOSPHODIESTERASE; PHOSPHORYLATION;
     EXPRESSION; IDENTIFICATION
L12
     ANSWER 7 OF 7
                       MEDLINE
                                                        DUPLICATE 4
     The kinetic properties of UDP-N-acetylglucosamine:glycoprotein
     N-acetylglucosamine-1-phosphotransferase (GlcNAc-
     phosphotransferase) partially purified from the soil amoeba
     Acanthamoeba castellanii have been studied. The transferase
     phosphorylated the lysosomal enzymes uteroferrin and cathepsin.
     Deglycosylated RNase (RNase A) did not inhibit the phosphorylation of
     RNase B or uteroferrin. These results indicate that purified amoeba
     GlcNAc-phosphotransferase recognizes a protein domain
     present on lysosomal enzymes but absent in most nonlysosomal
     glycoproteins. The transferase also exhibited a marked.
                                                              . . pathway
     for the mannose 6-phosphate recognition marker. We conclude that A.
     castellanii does not utilize the phosphomannosyl sorting pathway despite
     expression of very high levels of GlcNAc-
     phosphotransferase.
=> dis his
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    NTIS, ESBIOBASE, BIOTECHNO, WPIDS' ENTERED AT 16:14:55 ON 17 APR 2003
           206 S FURIN AND REVIEW
           2109 S FURIN/TI
             8 S L1 AND SUBUNIT
             5 DUP REM L3 (3 DUPLICATES REMOVED)
            96 S FURIN AND SUBUNIT AND FUSION
            82 S L5 AND CLEAV?
            20 DUP REM L6 (62 DUPLICATES REMOVED)
           101 S GLCNAC PHOSPHOTRANSFERASE
             7 S L8 AND (293 OR HEK293 OR CHO)
             3 DUP REM L9 (4 DUPLICATES REMOVED)
            21 S L8 AND (EXPRESS? OR RECOMBINA? OR DNA)
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L12
              7 DUP REM L11 (14 DUPLICATES REMOVED)
=> s 18 (5a) human
   5 FILES SEARCHED...
            10 L8 (5A) HUMAN
=> dup rem 113
PROCESSING COMPLETED FOR L13
              5 DUP REM L13 (5 DUPLICATES REMOVED)
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AΒ

STP

AB

L1

L2

L3

L4

L5

1.6

L7

L8

L9

L10

L11

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ANSWER 1 OF 5 BIOTECHDS COPYRIGHT 2003 THOMSON DERWENT AND ISI
       2001-09921 BIOTECHDS
 ΑN
       Novel N-acetylglucosamine-1-phosphotransferase and N-acetylglucosamine-1-
 TI
       phosphodiester-alpha-N-acetylglucosaminidase, useful for producing
       phosphorylated lysosomal hydrolase for treating lysosomal storage
          vector-mediated gene transfer and expression in host cell, monoclonal
          antibody and hybridoma
 ΑU
       Canfield W M
 PΑ
       Canfield W M
 LO
       Oklahoma City, OK, USA.
 PΙ
       WO 2001019955 22 Mar 2001
AΙ
       WO 2000-US21970 14 Sep 2000
PRAI
      US 1999-153831 14 Sep 1999
DТ
      Patent
LA
      English
OS
      WPI: 2001-290356 [30]
L14
     ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2003 ACS
ΔN
     2001:208390 HCAPLUS
DN
     134:248843
TΙ
     Use of GlcNAc-phosphotransferase and phosphodiester .alpha.-GlcNAcase in
     production of highly phosphorylated lysosomal hydrolases useful in
     treatment of lysosomal storage diseases
IN
     Canfield, William M.
PA
SO
     PCT Int. Appl., 91 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                            APPLICATION NO. DATE
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                            _____
                                            -----
                                                             _____
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             LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
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L14
     ANSWER 3 OF 5 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 1
AN
     1991:410623 BIOSIS
DN
     BA92:77588
TI
     ELEVATED CARBOHYDRATE PHOSPHOTRANSFERASE ACTIVITY IN HUMAN HEPATOMA AND
     PHOSPHORYLATION OF CATHEPSIN D.
AU
     OHHIRA M; GASA S; MAKITA A; SEKIYA C; NAMIKI M
CS
     BIOCHEM. LAB., CANCER INST., HOKKAIDO UNIV. SCH. MED., KITA-KU N15 W7,
     SAPPORO 060, JPN.
     BR J CANCER, (1991) 63 (6), 905-908.
SO
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CODEN: BJCAAI. ISSN: 0007-
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      BA; OLD
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      English
      ANSWER 4 OF 5 SCISEARCH COPYRIGHT 2003 ISI (R)
      91:384702 SCISEARCH
 AN
 GA<sup>*</sup>
      The Genuine Article (R) Number: FU823
      ELEVATED CARBOHYDRATE PHOSPHOTRANSFERASE ACTIVITY IN HUMAN HEPATOMA AND
 TI
      PHOSPHORYLATION OF CATHEPSIN-D
 AU
      OHHIRA M; GASA S (Reprint); MAKITA A; SEKIYA C; NAMIKI M
      HOKKAIDO UNIV, SCH MED, INST CANC, BIOCHEM LAB, KITA KU, N15W7, SAPPORO,
 CS
      HOKKAIDO 060, JAPAN; ASHIKAWA MED COLL, DEPT INTERNAL MED 3, ASAHIKAWA
      070, JAPAN
 CYA
      JAPAN.
      BRITISH JOURNAL OF CANCER, (1991) Vol. 63, No. 6, pp. 905-908.
 SO
 DT
      Article; Journal
 FS
      LIFE
 LΑ
      ENGLISH
 REC
     Reference Count: 22
      *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*
 L14
      ANSWER 5 OF 5
                        MEDLINE
                                                          DUPLICATE 2
                  MEDLINE
 ΑN
      87166059
 DN
      87166059
                 PubMed ID: 3031074
      Glucose-1-phosphotransferase and N-acetylglucosamine-1-phosphotransferase
      have distinct acceptor specificities.
AU
      Hiller A M; Koro L A; Marchase R B
NC
      EY 06714 (NEI)
      GM 31381 (NIGMS)
      JOURNAL OF BIOLOGICAL CHEMISTRY, (1987 Mar 25) 262 (9) 4377-81.
      Journal code: 2985121R. ISSN: 0021-9258.
CY
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DT
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LA
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L1
            206 S FURIN AND REVIEW
L_2
           2109 S FURIN/TI
L3
              8 S L1 AND SUBUNIT
L4
              5 DUP REM L3 (3 DUPLICATES REMOVED)
L5
             96 S FURIN AND SUBUNIT AND FUSION
L6
             82 S L5 AND CLEAV?
L7
             20 DUP REM L6 (62 DUPLICATES REMOVED)
L8
            101 S GLCNAC PHOSPHOTRANSFERASE
L9
              7 S L8 AND (293 OR HEK293 OR CHO)
L10
              3 DUP REM L9 (4 DUPLICATES REMOVED)
L11
             21 S L8 AND (EXPRESS? OR RECOMBINA? OR DNA)
L12
              7 DUP REM L11 (14 DUPLICATES REMOVED)
L13
             10 S L8 (5A) HUMAN
              5 DUP REM L13 (5 DUPLICATES REMOVED)
L14
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COST IN U.S. DOLLARS
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                                                                 161.91
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)
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SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 16:59:29 ON 17 APR 2003

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PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

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         Jun 03
                 New e-mail delivery for search results now available
                 PHARMAMarketLetter(PHARMAML) - new on STN
NEWS
         Aug 08
NEWS
         Aug 19
                 Aquatic Toxicity Information Retrieval (AQUIRE)
                 now available on STN
NEWS
         Aug 26
                 Sequence searching in REGISTRY enhanced
                 JAPIO has been reloaded and enhanced
NEWS
      7
         Sep 03
NEWS
         Sep 16
                 Experimental properties added to the REGISTRY file
     9
                CA Section Thesaurus available in CAPLUS and CA
NEWS
         Sep 16
         Oct 01 CASREACT Enriched with Reactions from 1907 to 1985
NEWS 10
         Oct 24 BEILSTEIN adds new search fields
NEWS 11
NEWS 12
        Oct 24 Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 13 Nov 18 DKILIT has been renamed APOLLIT
NEWS 14 Nov 25 More calculated properties added to REGISTRY
NEWS 15 Dec 04 CSA files on STN
NEWS 16 Dec 17 PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS 17 Dec 17 TOXCENTER enhanced with additional content
NEWS 18 Dec 17 Adis Clinical Trials Insight now available on STN
NEWS 19 Jan 29 Simultaneous left and right truncation added to COMPENDEX,
                 ENERGY, INSPEC
NEWS 20 Feb 13 CANCERLIT is no longer being updated
NEWS 21 Feb 24 METADEX enhancements
NEWS 22 Feb 24 PCTGEN now available on STN
NEWS 23 Feb 24 TEMA now available on STN
NEWS 24 Feb 26 NTIS now allows simultaneous left and right truncation
NEWS 25 Feb 26 PCTFULL now contains images
NEWS 26 Mar 04 SDI PACKAGE for monthly delivery of multifile SDI results
NEWS 27 Mar 19 APOLLIT offering free connect time in April 2003
NEWS 28 Mar 20 EVENTLINE will be removed from STN
NEWS 29 Mar 24 PATDPAFULL now available on STN
NEWS 30 Mar 24 Additional information for trade-named substances without
                 structures available in REGISTRY
                Indexing from 1957 to 1966 added to records in CA/CAPLUS
NEWS 31 Mar 24
NEWS 32 Apr 11
                Display formats in DGENE enhanced
NEWS 33 Apr 14
                MEDLINE Reload
NEWS 34 Apr 17
                Polymer searching in REGISTRY enhanced
NEWS EXPRESS April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT
             MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
              AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003
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             General Internet Information
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             Welcome Banner and News Items
             Direct Dial and Telecommunication Network Access to STN
NEWS PHONE
             CAS World Wide Web Site (general information)
NEWS WWW
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=> s furin and review T.1

206 FURIN AND REVIEW

=> s furin/ti

2109 FURIN/TI

=> s l1 and subunit

8 L1 AND SUBUNIT

=> dup rem 13

PROCESSING COMPLETED FOR L3

5 DUP REM L3 (3 DUPLICATES REMOVED)

=> d 1-5

ANSWER 1 OF 5 LIFESCI COPYRIGHT 2003 CSA

AN2001:24367 LIFESCI

- TI Transgenic animal bioreact AU Houdebine, L.M.
- CS Unite de Biologie du Developpement et Biotechnologie, Institut National de la Recherche Agronomique, 78352 Jouy-en-Josas Cedex, France; E-mail: houdebine@biotec.jouy.inra.fr
- SO Transgenic Research [Transgenic Res.], (20000800) vol. 9, no. 4-5, pp. 305-320. Special Issue: Frontiers in Transgenic Research.. ISSN: 0962-8819.
- DT Journal
- FS W2
- LA English
- SL English
- L4 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2003 ACS
- AN 2001:83194 HCAPLUS
- DN 135:17605
- TI Amyloidogenesis in familial British dementia is associated with a genetic defect on chromosome 13
- AU Ghiso, J.; Vidal, R.; Rostagno, A.; Miravalle, L.; Holton, J. L.; Mead, S.; Revesz, T.; Plant, G.; Frangione, B.
- CS Department of Pathology, New York University School of Medicine, New York, NY, 10016, USA
- SO Annals of the New York Academy of Sciences (2000), 920 (Molecular Basis of Dementia), 84-92
 - CODEN: ANYAA9; ISSN: 0077-8923
- PB New York Academy of Sciences
- DT Journal; General Review
- LA English
- RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L4 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2003 ACS
- AN 1999:443876 HCAPLUS
- DN 131:241113
- TI The polymorphism of the Ebola virus glycoprotein and its potential role in pathogenesis
- AU Klenk, Hans-Dieter; Volchkov, Viktor E.; Volchkova, Valentina A.; Feldmann, Heinz
- CS Institut fur Virologie Philipps-Universitat Marburg, Marburg, D-35011, Germany
- SO Nova Acta Leopoldina (1999), 78(307, Problems of Relevant Infectious Diseases), 141-149
 CODEN: NOALA4; ISSN: 0369-5034
- PB Deutsche Akademie der Naturforscher Leopoldina
- DT Journal; General Review
- LA German
- RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L4 ANSWER 4 OF 5 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
- AN 1998085973 EMBASE
- TI Molecular diversity in neurosecretion: Reflections on the hypothalamoneurohypophysial system.
- AU Gainer H.; Chin H.
- CS H. Gainer, Laboratory of Neurochemistry, Natl. Inst. Neurol.
 Disorders/Stroke, Building 36, 9000 Rockville Pike, Bethesda, MD 20892,
 United States
- SO Cellular and Molecular Neurobiology, (1998) 18/2 (211-230). Refs: 129
- ISSN: 0272-4340 CODEN: CMNEDI CY United States
- DT Journal; General Review
- FS 003 Endocrinology
 - 029 Clinical Biochemistry
- LA English
- SL English
- L4 ANSWER 5 OF 5 MEDLINE
- AN 1998065022 MEDLINE

```
DN
                 PubMed ID: 9414
      98065022
TI
      Three-dimensional structure of the zona pellucida.
AU.
      Green D P
      Department of Anatomy and Structural Biology, School of Medical Sciences,
      University of Otago Medical School, Dunedin, New Zealand.
SO
      REVIEWS OF REPRODUCTION, (1997 Sep) 2 (3) 147-56. Ref: 61
      Journal code: 9602351. ISSN: 1359-6004.
      ENGLAND: United Kingdom
     Journal; Article; (JOURNAL ARTICLE)
DT
      General Review; (REVIEW)
      (REVIEW, TUTORIAL)
LA
     English
FS
     Priority Journals
EM
     199801
ED
     Entered STN: 19980129
     Last Updated on STN: 19980129
     Entered Medline: 19980115
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           2109 S FURIN/TI
L2
L3
              8 S L1 AND SUBUNIT
              5 DUP REM L3 (3 DUPLICATES REMOVED)
=> s furin and subunit and fusion
            96 FURIN AND SUBUNIT AND FUSION
L5
=> s 15 and cleav?
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L6
=> dup rem 16
PROCESSING COMPLETED FOR L6
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=> d 1-10
L7
     ANSWER 1 OF 20
                        MEDITNE
                                                         DUPLICATE 1
AN
     2002430489
                    MEDLINE
DN
     22174911 PubMed ID: 12186905
     Cleavage at the furin consensus sequence RAR/KR(109)
     and presence of the intervening peptide of the respiratory syncytial virus
     fusion protein are dispensable for virus replication in cell
ΑU
     Zimmer Gert; Conzelmann Karl-Klaus; Herrler Georg
     Institut fur Virologie, Tierarztliche Hochschule Hannover, D-30559
     Hannover, Germany.
SO
     JOURNAL OF VIROLOGY, (2002 Sep) 76 (18) 9218-24.
     Journal code: 0113724. ISSN: 0022-538X.
CY
     United States
DT
     Journal; Article; (JOURNAL ARTICLE)
LΑ
     English
FS
     Priority Journals
EM
     200210
ED
     Entered STN: 20020821
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     ANSWER 2 OF 20
                                                         DUPLICATE 2
                        MEDLINE
                    MEDLINE
AΝ
     2002199772
DN
     21930153 PubMed ID: 11932382
TΙ
     Amino-terminal precursor sequence modulates canine distemper virus
     fusion protein function.
ΑU
     von Messling Veronika; Cattaneo Roberto
```

CS Molecular Medicine Program, yo Clinic, Rochester, Minnesot 5905, USA. SO JOURNAL OF VIROLOGY, (2002 May) 76 (9) 4172-80. Journal code: 0113724. ISSN: 0022-538X. CY United States DT Journal; Article; (JOURNAL ARTICLE) LΑ English FS' Priority Journals EM200205 ED Entered STN: 20020405 Last Updated on STN: 20020511 Entered Medline: 20020510 L7 ANSWER 3 OF 20 MEDLINE DUPLICATE 3 AN 2002131171 MEDLINE 21851071 PubMed ID: 11861826 DN Enhancing the proteolytic maturation of human immunodeficiency virus type TΙ 1 envelope glycoproteins. Binley James M; Sanders Rogier W; Master Aditi; Cayanan Charmagne S; Wiley ΑU Cheryl L; Schiffner Linnea; Travis Bruce; Kuhmann Shawn; Burton Dennis R; Hu Shiu-Lok; Olson William C; Moore John P CS Department of Microbiology and Immunology, Weill Medical College of Cornell University, New York, New York 10021, USA.. jbinley@scripps.edu NC AI45463 (NIAID) AI47735 (NIAID) AI49566 (NIAID) AI49764 (NIAID) JOURNAL OF VIROLOGY, (2002 Mar) 76 (6) 2606-16. SO Journal code: 0113724. ISSN: 0022-538X. United States CY DTJournal; Article; (JOURNAL ARTICLE) LA English FS Priority Journals EΜ 200203 ED Entered STN: 20020228 Last Updated on STN: 20020403 Entered Medline: 20020329 L7 ANSWER 4 OF 20 MEDLINE DUPLICATE 4 AN 2001690572 MEDLINE DN 21602548 PubMed ID: 11739683 TIFurin is involved in baculovirus envelope fusion protein activation. ΑU Westenberg Marcel; Wang Hualin; IJkel Wilfred F J; Goldbach Rob W; Vlak Just M; Zuidema Douwe CS Laboratory of Virology, Wageningen University and Research Center, 6709 PD Wageningen, The Netherlands. SO JOURNAL OF VIROLOGY, (2002 Jan) 76 (1) 178-84. Journal code: 0113724. ISSN: 0022-538X. CYUnited States DTJournal; Article; (JOURNAL ARTICLE) LA English FS Priority Journals EM 200201 ED Entered STN: 20011213 Last Updated on STN: 20020125 Entered Medline: 20020110 L7 ANSWER 5 OF 20 MEDLINE DUPLICATE 5 2002003594 MEDLINE AN DN 21623835 PubMed ID: 11752701 ΤI Multiple glycosylated forms of the respiratory syncytial virus fusion protein are expressed in virus-infected cells. ΑU Rixon Helen W McL; Brown Craig; Brown Gaie; Sugrue Richard J CS MRC Virology Unit, Institute of Virology, Church Street, Glasgow G11 5JR, UK. SO JOURNAL OF GENERAL VIROLOGY, (2002 Jan) 83 (Pt 1) 61-6. Journal code: 0077340. ISSN: 0022-1317. CY England: United Kingdom

DT

Journal; Article; (JOURNAL ARTICLE)

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FS
      Priority Journals
 EM.
      200202
 ED
      Entered STN: 20020102
      Last Updated on STN: 20020220
      Entered Medline: 20020219
      ANSWER 6 OF 20 HCAPLUS COPYRIGHT 2003 ACS
 L7
                                                              DUPLICATE 6
      2001:636263 HCAPLUS
 AN
 DN
      135:176419
      Methods for identifying candidate polynucleotide molecules encoding a
 ΤI
      protease using viral display package comprising chimeric envelope protein
      Russell, Stephen J.; Chadwick, Mark P.; Buchholz, Christian
 IN
 PA
      Cambridge Drug Discovery, Ltd., UK
 SO
      PCT Int. Appl., 25 pp.
      CODEN: PIXXD2
 דת
      Patent
 LΑ
      English
 FAN.CNT 1
      PATENT NO.
                         KIND DATE
                                                APPLICATION NO. DATE
                         _ _ _ _
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                                              WO 2001-US5389 20010220
                        A1
                                20010830
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               HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
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      EP 1282727
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                         A1
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      US 2002009715
                         A1
                               20020124
                                                US 2001-791427
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      US 6387686
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                               20020514
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                         P
                               20000225
      WO 2001-US5389
                         W
                               20010220
RE.CNT 5
                THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
                ALL CITATIONS AVAILABLE IN THE RE FORMAT
L7
      ANSWER 7 OF 20 WPIDS (C) 2003 THOMSON DERWENT
ΑN
      2001-582058 [65]
                         WPIDS
DNC
     C2001-172577
      Identifying polynucleotide encoding protease, comprises packaging target
TI
      cell RNA into viral display packages that display chimeric or recombinant
      envelope proteins, and contacting with a second group of target cells.
DC
     B04 D16
ΙN
     CHADWICK, M P; RUSSELL, S J
      (CAMB-N) CAMBRIDGE DRUG DISCOVERY LTD; (BIOF-N) BIOFOCUS DISCOVERY LTD;
PA
      (CHAD~I) CHADWICK M P; (RUSS-I) RUSSELL S J
CYC
ΡI
     WO 2001062970 A1 20010830 (200165)* EN
                                                   30p
                                                           C12Q001-68
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             DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
             LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE
             SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
     AU 2001047206 A 20010903 (200202)
                                                          C120001-68
     US 2002039729 A1 20020404 (200227)
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                                                          C12Q001-70
ADT
     WO 2001062970 A1 WO 2001-US5381 20010220; AU 2001047206 A AU 2001-47206
     20010220; US 2002039729 A1 Provisional US 2000-184981P 20000225, US
     2001-792416 20010223; EP 1266036 A1 EP 2001-920120 20010220, WO
     2001-US5381 20010220; US 6506557 B2 Provisional US 2000-184981P 20000225,
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LA

English

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US 2001-792416 20010223
FDT
     AU 2001047206 A Based on WO 200162970; EP 1266036 A1 Based on WO 200162970
PRAI US 2000-184981P 20000225; US 2001-792416
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          C12P021-06; C12Q001-06; G01N033-53
L7
     ANSWER 8 OF 20
                        MEDLINE
                                                         DUPLICATE 7
AN
     2001466733
                    MEDLINE
DN
     21402931 PubMed ID: 11418598
TΤ
     Proteolytic activation of respiratory syncytial virus fusion
     protein. Cleavage at two furin consensus sequences.
     Zimmer G; Budz L; Herrler G
ΑIJ
     Institut fur Virologie, Tierarztliche Hochschule Hannover, Bunteweg 17,
CS
     D-30559 Hannover, Germany.
     JOURNAL OF BIOLOGICAL CHEMISTRY, (2001 Aug 24) 276 (34) 31642-50.
SO
     Journal code: 2985121R. ISSN: 0021-9258.
CY
     United States
DT
     Journal; Article; (JOURNAL ARTICLE)
LA
     English
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EΜ
     200109
ED
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     Entered Medline: 20010920
     ANSWER 9 OF 20 SCISEARCH COPYRIGHT 2003 ISI (R)
L7
     2001:372489 SCISEARCH
AN
     The Genuine Article (R) Number: 427CF
GA
TI
     Purification and characterization of a Ca2+-independent endoprotease
     activity from peripheral blood lymphocytes: Involvement in HIV-1 qp160
     maturation
ΑU
     Bendjennat M; Bahbouhi B; Bahraoui E (Reprint)
     Univ Toulouse 3, Lab Immunovirol, EA 3038, UFR SVT, F-31062 Toulouse,
     France (Reprint)
CYA France
     BIOCHEMISTRY, (17 APR 2001) Vol. 40, No. 15, pp. 4800-4810.
so
     Publisher: AMER CHEMICAL SOC, 1155 16TH ST, NW, WASHINGTON, DC 20036 USA.
     ISSN: 0006-2960.
DT
     Article; Journal
LΑ
     English
REC Reference Count: 48
     *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*
L7
     ANSWER 10 OF 20
                         MEDLINE
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AN
     2000111319
                    MEDLINE
DN
     20111319 PubMed ID: 10644371
     Proteolytic cleavage of the fusion protein but not
TΙ
     membrane fusion is required for measles virus-induced
     immunosuppression in vitro.
ΑU
     Weidmann A; Maisner A; Garten W; Seufert M; ter Meulen V;
     Schneider-Schaulies S
CS
     Institute for Virology and Immunobiology, University of Wlurzburg, D-97078
     W]urzburg, Germany.
SO
     JOURNAL OF VIROLOGY, (2000 Feb) 74 (4) 1985-93.
     Journal code: 0113724. ISSN: 0022-538X.
CY
     United States
DT
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     Entered STN: 20000314
     Last Updated on STN: 20000314
     Entered Medline: 20000302
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L7
      ANSWER 11 OF 20 SCISEARCH PYRIGHT 2003 ISI (R)
 AN
      2000:766157 SCISEARCH
 GA.
      The Genuine Article (R) Number: 360ZM
      The cleavage activation and sites of glycosylation in the
 TI
      fusion protein of Hendra virus
      Michalski W P (Reprint); Crameri G; Wang L F; Shiell B J; Eaton B
 AU
      CSIRO ANIM HLTH, AUSTRALIAN ANIM HLTH LAB, PRIVATE BAG 24, GEELONG, VIC
 CS
      3220, AUSTRALIA (Reprint)
 CYA
      AUSTRALIA
      VIRUS RESEARCH, (25 SEP 2000) Vol. 69, No. 2, pp. 83-93.
 SO
      Publisher: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM,
      NETHERLANDS.
      ISSN: 0168-1702.
DT
     Article; Journal
 FS
     LIFE
 _{\rm LA}
     English
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L7
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                          MEDLINE
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AN
     2000431780
                     MEDLINE
DN
     20390113
                PubMed ID: 10930660
 TI
     Cleavage of the respiratory syncytial virus fusion
     protein is required for its surface expression: role of furin.
ΑU
     Bolt G; Pedersen L O; Birkeslund H H
     Department of Medical Microbiology and Immunology, Panum Institute,
CS
     University of Copenhagen, Blegdamsvej 3, 2200 N, Copenhagen, Denmark..
     qb@kvl.dk
SO
     VIRUS RESEARCH, (2000 Jun) 68 (1) 25-33.
     Journal code: 8410979. ISSN: 0168-1702.
CY
     Netherlands
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TιA
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FS
     Priority Journals
     200009
ED
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     Last Updated on STN: 20000922
     Entered Medline: 20000914
     ANSWER 13 OF 20 SCISEARCH COPYRIGHT 2003 ISI (R)
L7
ΑN
     2000:213418 SCISEARCH
     The Genuine Article (R) Number: 292MA
GA
     Proteolytic processing of Marburg virus glycoprotein
TI
     Volchkov V E (Reprint); Volchkova V A; Stroher U; Becker S; Dolnik O;
ΑU
     Cieplik M; Garten W; Klenk H D; Feldmann H
CS
     UNIV MARBURG, INST VIROL, ROBERT KOCH STR 17, D-35037 MARBURG, GERMANY
     (Reprint)
CYA GERMANY
     VIROLOGY, (1 MAR 2000) Vol. 268, No. 1, pp. 1-6.
SO
     Publisher: ACADEMIC PRESS INC, 525 B ST, STE 1900, SAN DIEGO, CA
     92101-4495.
     ISSN: 0042-6822.
DΤ
     Article; Journal
FS
     LIFE
T.A
     English
REC
     Reference Count: 46
     *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*
L7
     ANSWER 14 OF 20 HCAPLUS COPYRIGHT 2003 ACS
AN
     1999:795994 HCAPLUS
DN
     132:31744
TΙ
     Gene probes used for genetic profiling in healthcare screening and
     planning
ΤN
     Roberts, Gareth Wyn
PΑ
     Genostic Pharma Ltd., UK
     PCT Int. Appl., 745 pp.
SO
     CODEN: PIXXD2
DT
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LA
     English
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     Roberts, Gareth Wyn
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     Genostic Pharma Limited, UK
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     PCT Int. Appl., 149 pp.
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      several constituent therapeutic proteins and expression constructs for use
      in gene therapy
      Gaken, Johannes Adrianus; Farzaneh, Farzin; Russell, Stephen James
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     Moyle, William R.
     University of Medicine & Dentistry of New Jersey, USA
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      Oligomerization of anthrax toxin protective antigen and binding of lethal
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      Singh Y; Klimpel K R; Goel S; Swain P K; Leppla S H
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     Panum Institute, University of Copenhagen, Blegdamsvej 3, Copenhagen N,
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